

REMARKS

Reconsideration and allowance of the subject patent application are respectfully requested.

Claims 1, 3-6 and 13 were rejected under 35 U.S.C. Section 101 as allegedly being directed to non-statutory subject matter. While not acquiescing in this rejection, independent claims 1 and 13 have each been amended to recite a "computer" system. Conforming amendments have been made to the claims that depend from claim 1. These claims are now believed to comply with 35 U.S.C. Section 101.

Claims 1, 3-7 and 9-13 were rejected under 35 U.S.C. Section 103(a) as allegedly being made "obvious" by Roberts et al. (US-2004/0088570) in view of Miyata et al. (U.S. - 2004/0117401).

As previously discussed, Roberts et al. does not explicitly teach the limitations of claims 1, 7 and 13 that the factors in dependence on which it is determined whether the file can be regarded as safe include "the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected." Miyata et al. is alleged to teach this limitation and the office action alleges that it would have been obvious to the person skilled in the art at the time of the invention to modify Roberts et al. to include this limitation from Miyata et al.

As previously discussed, Miyata et al. relates to a system storing files on a file server 13. The file server 13 can issue a scan request to scan server 15 to scan files. This occurs for example when the file is opened or closed on request from a client 11. The system avoids the need for unnecessary scans by not scanning files when the virus database has not been updated since the last time the file has been scanned. This is achieved by comparing the last scan time 204 of the file stored as an attribute of the file (referred to as X in Fig. 3) with the file update time of the virus database 1621 (referred to as Y in Fig. 3) in step 307 of Fig. 3.

Thus Miyata et al. does not disclose the limitation of the claims of using a factor of "the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected." None of (a) the last scan time 204 (or X); (b) the last update time Y; or (c) the comparison of X with Y in step 307 constitutes such a feature.

Considering (a) the last scan time 204 (or X), this is an attribute of the file specifying the point in time when the file was last scanned. This is not a “length of time” as required by claims 1, 7 and 13 because it specifies a point in time and there is no consideration of a length of time. For example, the last scan time 204 (or X) is not subtracted from the current time to obtain a length of time. Furthermore, the last scan time 204 (or X) is clearly not “the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected” because it simply indicates when the file was last scanned and without giving any indication of how long the file has been known without malware-containing instances of it being detected. Even considering for the sake of argument the notional case that Miyata et al. did teach comparing the last scan time 204 (or X) with the current time (which it does not), this would result in consideration of the length of time since the file was last scanned, which is not the length of time recited in the claims.

Considering (b) the last update time Y, this simply specifies the point in time when the virus database was last updated. This does not constitute the “the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected” because it concerns the virus database.

Considering (c) the comparison of X with Y in step 307, this feature of Miyata et al. simply involves determining whether the last scan time 204 (or X) is before or after the last update time Y. There is no consideration of a “length of time” as required by the claims 1, 7 and 13 because Miyata et al. is simply determining whether one point in time occurs before or after another. Indeed the lengths of time are irrelevant to this comparison in Miyata et al. The result of the comparison can be positive (if $X < Y$) or negative (if $X > Y$) regardless of the length of time between the last scan time 204 (or X) and the current time being large or small. Similarly, the result of the comparison can be positive (if $X < Y$) or negative (if $X > Y$) regardless of the length of time between X and Y being large or small. Thus, Miyata et al. does not teach any consideration whatsoever of the limitation of “the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected.”

To the contrary, the teaching of Miyata et al. is simply that if the virus database has not been updated (as indicated by the last update time Y) since the file was last scanned (as indicated by the last scan time 204 or X), then it is not necessary to perform a subsequent scan of the file.

Thus Miyata et al. does not consider the claimed feature that “the length of time for which the database indicates that the files have been known without malware-containing instances of it being detected” can be used as the basis for determining that the file is regarded to be safe and hence subject, for example, to less thorough processing.

In the Response to Arguments in paragraph 5, the office action disagrees with the above arguments and contends that Miyata et al. teaches the claim limitation missing from Roberts et al. Specifically, the office action argues:

In paragraph 26 [of Miyata et al.], x indicates a last scan time, paragraph 26, y indicates the last update time of the virus database, paragraph 27, if $x > y$ file is not scanned because virus free, if last scan time of the file $>$ last update of the virus database time then there is no virus. A comparison of the timestamps must be performed. The difference between the two times is generated to determine a result which would be the length of time the file is without malware.

As should be clear from the above, Applicant does not contest the observation in the office action that Miyata et al. discloses comparing X and Y. However, this does not mean that Miyata et al. discloses the relevant limitation of “the length of time for which the database indicates that the file has been known without malware-containing instances of it being detected.”

Consequently, Applicant respectfully submits that the finding in the office action that Miyata et al. discloses that “the difference between the two times is generated to determine a result which would be the length of time is without malware” is incorrect. This is simply not disclosed in Miyata et al. The relevant paragraph [0027] reads:

Scan server 15 receives the inquiry about Y. CPU 152 reads Y from storage device 162 and responds to host 13 (step 305). Host 13 receives the response (step 306). CPU 132 compares X with Y (step 307). If X is earlier than Y ($X < Y$), F has been scanned before virus database 1621 has been updated. As a result, F may be infected with the newest virus. CPU 152 scans F (step 308). The scanning details are described in FIG. 4. CPU 152 notifies host 13 of the scan result (step 309). If X is later than Y, no scan is needed. CPU 132 opens F (step 312).

Applicant respectfully submits that this paragraph plainly contains no disclosure of generating a difference between the two times X and Y. The comparison in step 307 is simply to determine whether $X > Y$ or vice versa. Such comparison does not imply generation of the difference (X-Y). As would be understood by one of ordinary skill in the fields of logic and

computer programming, testing whether $X > Y$ produces a binary true/false output, not a difference. Thus, contrary to the assertions in the office action, Miyata et al. does not disclose generation or use of any "length of time".

Miyata et al. simply regards the file as safe if $X > Y$ on the basis that this means the file has not been updated since the file was scanned. The purpose of does not require or suggest knowledge of the difference (length of time) between X and Y. To achieve the purposes of Miyata et al., it is sufficient to know that $X > Y$, regardless of the magnitude of the difference. In the context of Miyata et al., the length of time between the last scan time X and the last update Y, be it only a few seconds or many years or anything in between, is irrelevant. This contrasts significantly with the claimed subject matter.

As discussed above, Applicant submits that the rejection is improper because Miyata et al. does not teach the limitation asserted in the office action. Thus, it is not necessary to address the additional argument in the office action that it would have been obvious to modify Roberts et al. to include such a limitation from Miyata et al. However, the absence of argument on this point should not be taken as acceptance that it is obvious to modify any teaching of Roberts et al. by any teachings of Miyata et al.


The rejection of dependent claims 3-6 and 9-12 is respectfully traversed at least because of the dependencies of these claims on one or the other of claims 1 and 7.

The pending claims are believed to be allowable and favorable office action is respectfully requested.

Respectfully submitted,

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